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| 10/004,116 | 11/02/2001 | Sundar Raman | 01-1015 | 8024 |

7590 09/21/2006

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| EXAMINER |
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AVELLINO, JOSEPH E

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| ART UNIT | PAPER NUMBER |
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2143

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/004,116

Applicant(s)

RAMAN ET AL.

Examiner

Joseph E. Avellino

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16-25 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-14 and 16-25 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-14, 16-25 are presented for examination; claims 1, 6, 10, 11, 13, 18, and 19 independent.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 6, 7, 18, 19, 21, 24, and 25 are rejected under 35 U.S.C. 101 because they are not statutory.

Referring to claim 18, a computer program is merely code, not tangibly embodied. A computer program can only be patented if it is embodied on a computer readable medium. See MPEP 2106.

Referring to all other claims, in view of Applicant's disclosure, specification page 13, lines 3-11, the medium is not limited to tangible embodiments, instead being defined as including both tangible embodiments (e.g. readable memory devices) and intangible embodiments (e.g. communications or transmission medium such as a bus or an optical, wired or wireless communications link). As such the claim is not limited to statutory subject matter and is therefore non-statutory. Claims 6 and 7 are means-plus-function claims and as per 35 USC 112, 6th, is non statutory as not being limited to tangible embodiments of the invention. See MPEP 2106. Applicant is requested to amend the claim to read "a readable memory device".

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jordan et al. (USPN 6,438,652) in view of Zisapel et al. (USPN 6,665,702) (hereinafter Zisapel).

4. Referring to claim 1, Jordan discloses a method of load balancing in an upstream proxy (i.e. load monitor 120) (col. 5, lines 40-65), the method comprising:

receiving information from a plurality of downstream proxies 150 at a control node (i.e. load monitor 120) (col. 6, lines 6-25);

maintaining a list of downstream proxies (Figure 2b, ref. 102 load table; col. 6, lines 10-15);

assigning a weight to each of the downstream proxies in the list, the weight based upon information received from the downstream proxies (col. 6, lines 6-25).

Jordan does not specifically state receiving a delay time between the control node and the downstream proxies. In analogous art, Zisapel discloses another system of load balancing which discloses the information received by the control node from the proxies indicates a time delay (i.e. pinging, latency, TTL value) (col. 4, lines 45-56; col. 14, line 64 to col. 15, line 7). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Zisapel with Jordan since

Jordan teaches that an overloaded cache server can be identified by any conventional techniques, which includes loads taking into account the load due to forwarding frequency (col. 6, lines 18-30). This would lead one of ordinary skill to search for other techniques to load balance a network, finding Zisapel and its novel method using TTL values, latency, and distance between nodes (col. 14, line 64, to col. 15, line 7).

5. Referring to claim 2, Jordan discloses receiving a request and using the weights to assign a proxy (col. 6, lines 25-27).

6. Referring to claim 3, Jordan discloses the information is indicative of the traffic load on the downstream proxy (i.e. number of forwarded requests and number of direct requests (col. 6, lines 15-17)).

7. Referring to claim 4, Jordan discloses the information is indicative of the number of requests in the responses of the downstream proxy (col. 6, lines 15-17).

8. Referring to claim 5, Jordan discloses the load is determined by querying (i.e. probing) the processes of the downstream proxy (col. 6, lines 10-16).

9. Claims 6-9 are rejected for similar reasons as stated above.

10. Referring to claim 10, Jordan discloses the invention substantively as described in claim 1. Jordan furthermore discloses sending a message to each of the proxies (i.e. probing) (col. 6, lines 10-15). Jordan does not disclose determining a response time for each of the messages sent to the proxies and assigning weights to each of the proxies based on the response time. In analogous art, Zisapel discloses another method of assigning weights to a group of proxies wherein a response time is determined for each of the messages sent to the proxies (i.e. polling request and results) (Figures 2D-2E) and assigning weights (i.e. network proximity) to each of the proxies based on the response time (col. 14, lines 40-63; col. 15, lines 8-25). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Zisapel with Jordan since Jordan teaches that the load of a cache server can be a weighted sum of requests (col. 6, lines 15-17), however does not state that it is required to be this and furthermore one of ordinary skill in the art would know that it is well known there are numerous other attributes and methods to determine load and weighting of a cache server. This would lead one of ordinary skill in the art to search for other methods as to how to determine the weighting of a server, eventually finding the system of Zisapel and its novel method of utilizing the proximities of the server farms based on polling methods to determine which would be the best server farm in order to service the request.

11. Claims 11 and 13 are rejected for similar reasons as stated above. Furthermore Zisapel discloses a location server directing the messages received by the control node to the proxies (Figure 2E, ref. 54).

12. Referring to claims 12 and 14, Jordan in view of Zisapel discloses the invention substantively as described in the claims above. Jordan in view of Zisapel do not disclose implementing the SIP protocol or using an INVITE message. However Jordan in view of Zisapel does disclose numerous polling methods in which to determine the proximities of the other servers (Zisapel: col. 4, lines 45-52). This would lead one of ordinary skill in the art to search other techniques in which to poll servers to elicit a response to determine the round trip time. It is also well known that the SIP INVITE message will elicit a response from a remote server to the sender (see SIP: Session Initiation Protocol, RFC 2543, p. 27, cited by Applicant in IDS). Therefore by this rationale it would have been obvious to one of ordinary skill to modify the system of Jordan in view of Zisapel in order to implement the SIP protocol to provide another polling technique since any one polling request might fail as supported by Zisapel (col. 15, lines 5-7).

13. Referring to claim 15, Jordan in view of Zisapel disclose the invention substantively as described in claim 13. Jordan in view of Zisapel further disclose the information received by the control node from the proxies indicates a time delay (i.e. TTL value) (col. 14, line 64 to col. 15, line 7). It would be obvious to a person of

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ordinary skill in the art at the time the invention was made to combine the teaching of Zisapel with Jordan since Jordan teaches that the load of a cache server can be a weighted sum of requests (col. 6, lines 15-17), however does not state that it is required to be this and furthermore one of ordinary skill in the art would know that it is well known there are numerous other attributes and methods to determine load and weighting of a cache server. This would lead one of ordinary skill in the art to search for other methods as to how to determine the weighting of a server, eventually finding the system of Zisapel and its novel method of utilizing the proximities of the server farms based on polling methods to determine which would be the best server farm in order to service the request.

14. Claim 16 is rejected for similar reasons as stated above.

15. Referring to claim 17, Jordan discloses including a plurality of records (i.e. load table) (Figure 1b, ref. 120').

16. Claims 18 and 19 are rejected for similar reasons as stated above.

Claims 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jordan in view of Zisapel as applied to claims 1-19 above, and further in view of Applicants Admitted Prior Art (page 2, of disclosure) (hereinafter AAPA).

17. Jordan in view of Zisapel disclose the invention substantively as described in claims 1-19, however do not disclose that the proxies implement the SIP protocol. In analogous art, AAPA discloses that proxy servers can implement the SIP protocol (i.e. "arrays of SIP proxy servers") (p. 2, lines 20-21). It would have been obvious to one of ordinary skill in the art to combine the teaching of AAPA with Jordan and Zisapel in order to provide the proxy servers with increased call capacity and redundancy.

Response to Amendment

18. The Office has considered the amendment to claim 17. The Office withdraws the rejection under 35 USC 112, second paragraph.

Response to Arguments

19. Applicant's arguments filed January 23, 2006 have been fully considered but they are not persuasive.

20. In the remarks, Applicant argues, in substance, that (1) neither Jordan nor Zisapel Teach or suggest Applicant's presently claimed invention, and (2) the 101 rejection should be withdrawn because of the phrase "computer readable medium".

21. As to point (1) Applicant is simply incorrect. As clearly shown and demonstrated in the previous rejections, it is the combination of Jordon in view of Zisapel which teach the claimed invention. The Examiner never stated that both the references anticipate

the claims (as alluded to on page 14). Jordan discloses assigning a weight (i.e. load condition) to the proxies derived from information gathered from the downstream proxies. Applicant must be aware that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). As such, any non-claimed version of what Applicant interprets the term "weight" be mean is not considered sine it is not a claimed limitation. Applicant can see in col. 6, lines 6-25 of Jordan discloses assigning a "load condition 1021 of each cache server so that overloaded and underloaded servers can be identified". Furthermore it is stated that "the load of a cache server can be a weighted sum of the number of forwarded requests and the number of direct requests" (col. 6, lines 6-25). This clearly meets the limitation of assigning a weight to the proxies, since the load construes how often a proxy server is chosen to service a request (i.e. the more loaded a proxy server is, the less likely it will be chosen). By this rationale, the rejection is maintained.

22. As to point (2) Applicant is incorrect. As explained earlier in the rejection, the "medium" is not limited to tangible embodiments of the invention, rather including intangible embodiments such as a transmission medium (see 101 rejection above). As such the rejection stands until a proper amendment to provide the medium on a tangible medium such as on a readable memory device. See MPEP 2106. By this rationale, the rejection is maintained.

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

24. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

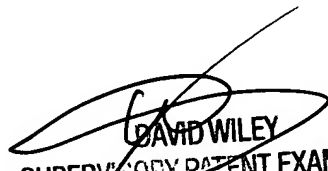
25. Applicant has had numerous opportunities to amend the claimed subject matter, and has failed to modify the claim language to distinguish over the prior art of record by clarifying or substantially narrowing the claim language. Thus, Applicant apparently intends that a broad interpretation be given to the claims and the Examiner has adopted such in the present and previous Office action rejections. See *In re Prater and Wei*, 162 USPQ 541 (CCPA 1969), and MPEP 2111.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Joseph E. Avellino, Examiner
September 11, 2006


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